

Title (en)  
Method for dust-free manufacture of master batches containing nano-particles (CNT) in high viscosity rubbers by means of a three roll device

Title (de)  
Verfahren zur staubfreien Herstellung von nanopartikelhaltigen (CNT) Masterbatches in hochviskosen Kautschuken mittels Dreiwalzenwerk

Title (fr)  
Procédé de fabrication sans poussière de mélanges maîtres contenant des nanoparticules (CNT) dans des caoutchoucs très visqueux à l'aide d'un appareil à trois cylindres

Publication  
**EP 2607408 A1 20130626 (DE)**

Application  
**EP 11194923 A 20111221**

Priority  
EP 11194923 A 20111221

Abstract (en)  
Preparing nanoparticle-containing masterbatch, comprises mixing the nanoparticles with at least one polymer latex, heating to temperature of = 100[deg] C, and dispersing after removing the water to less than 10 wt.%, preferably less than 1 wt.%, using a three-roll mill.

Abstract (de)  
Die Erfindung betrifft ein neues Verfahren zur Herstellung nanopartikelhaltiger Masterbatches in hochviskosen Kautschuken mittels Dreiwalzenwerk. Dabei werden die pulverförmigen Nanopartikel mit mindestens einem Polymer-Latex vermischt, auf Temperaturen #¥ 100 °C erwärmt und nach Entfernung des Wassers auf weniger als 10 Gew.% mit einem Dreiwalzenwerk dispergiert.

IPC 8 full level  
**C08J 3/22** (2006.01); **C08J 3/21** (2006.01); **C08K 3/04** (2006.01); **C08K 7/24** (2006.01)

CPC (source: EP RU)  
**B82Y 30/00** (2013.01 - EP); **C08J 3/203** (2013.01 - EP); **C08J 3/2053** (2013.01 - EP); **C08J 5/005** (2013.01 - EP); **C08K 3/04** (2013.01 - RU); **B82Y 30/00** (2013.01 - RU); **C08J 3/22** (2013.01 - RU); **C08J 2309/04** (2013.01 - EP); **C08J 2409/04** (2013.01 - EP); **C08K 3/041** (2017.04 - EP)

Citation (applicant)  

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Designated contracting state (EPC)  
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DOCDB simple family (application)  
**EP 11194923 A 20111221**; EP 12196017 A 20121207; RU 2012155565 A 20121221